

Serial No. 10/677,291

Amendment Dated: December 14, 2005

Reply to Office Action Mailed: September 27, 2005

Attorney Docket No. 52811US

Amendments to the Specification:

3-23
Page 5, lines 8-11, substitute the following paragraph:

The method comprises the steps of:

inserting the member to be bonded into a fitting hole formed in the bonding member having an inner diameter greater than an outer diameter of the member to be bonded, followed by positioning the member to be bonded;

pressurizing a portion, in the vicinity of the fitting portion of the member to be bonded, of the bonding member at a load for generating a stress enough to effect plastically deform the material of the bonding member, followed by to effect preliminarily plastic bonding;

further pressurizing the portion, in the vicinity of the fitting portion of the member to be bonded, of the bonding member at a load in excess of an elastic limit of the material of the bonding member; and

generating compression force in an axial direction of the member to be bonded at the portion in the vicinity of the fitting portion of the bonding member, and then,

allowing part of the material of the fitting portion in excess of the elastic limit to effect plastic-flow in such a manner as to fill a gap defined between the member to be bonded and the bonding member;

whereby the bonding member and the member to be bonded are tightly integrated with each other.

*CK
10/24/08*

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19
Page 6, line 23 to Page 7, line 2 substitute the following paragraph:

The present invention is further applied to a mechanical apparatus provided with a bonded body comprising a bonding member and a member to be bonded, which are used in a device for rotating the bonding member on which rotary disks are stacked and the to-be-bonded member serving as a rotary shaft in integral bonding:

wherein a portion, in the vicinity of the fitting portion of the to-be-plastically deformed part, which is in the vicinity of the fitting portion the to-be-bonded member and is further pressed, followed by to effect flow bonding.

10/24/08
C/H
Page 12, lines 2 – 11, substitute the following paragraph:

The pressing force of the preliminarily bonding punch 60 is a load that generates stress large enough to plastic-deform the material forming the hub 2, and force that plastically deforms a portion corresponding to such a depth as to fill the fitting clearance between the shaft 1 and the hub 2 vertically. The preliminarily bonding punch 60 is pressed down at the above-described load, and then, the material in the vicinity of the bonding hole 21 of the hub 2 is allowed to plastic-flow, followed by to effect the preliminary bonding. The bonding portion after the preliminarily plastic bonding in the above-described manner is shown in Fig. 8, which is an enlarged vertical cross-sectional view.

Amendments to the Specification:

Page 3, please amend the paragraph at lines 13-14, as follows:

Fig. 1 is a general plane plan view of a hard disk drive to which the present invention is applied.

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Page ~~6~~, please amend the paragraph bridging pages 5 and 6 as follows:

CH
10/24/08

The present invention is also applied to a bonded body comprising a bonding member and a member to be bonded, which are used in a device for rotating the bonding member on which rotary disks are stacked and the member to be bonding bonded serving as a rotary shaft in integral bonding:

wherein a portion, in the vicinity of the fitting portion of the member to be bonded, of the bonding member is pressurized at a load for generating a stress enough to plastically deform the material of the bonding member, followed by preliminarily plastic bonding;

further the portion, in the vicinity of the fitting portion of the member to be bonded, of the bonding member is pressurized at a load in excess of an elastic limit of the material of the bonding member; and

a compression force in an axial direction of the to-be-bonded member is generated at the portion in the vicinity of the fitting portion of the bonding